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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/759,782

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Richard L. Marks

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EXAMINER

DHARIA, PRABODH M

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/759,782	Applicant(s) MARKS, RICHARD L.	
	Examiner Prabodh M. Dharja	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>07-02-04, 05-14-07</u> . | 6) <input type="checkbox"/> Other: _____ |

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows: a specific reference to the continuation-in-part, prior-filed application in compliance with 37 CFR 1.78(a) is included in the first sentence(s) of the specification following the title or in an application data sheet.

2. **Status:** Please all the replies and correspondence should be addressed to examiner's new art unit 2629. Receipt is acknowledged of papers submitted on 01-16-2004 under a new application, which have been placed of record in the file. Claims 1-50 are pending in this action.

Drawings

3. The drawings were received on 06-21-2004. These drawings are accepted by the examiner.

Information Disclosure Statement

4. The information disclosure statements (IDS) submitted on 07-02-04,05-14-07 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 41-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Curran et al. (US 6,753,849 B1).

Regarding Claim 41, Curran et al. teaches an input device for interfacing with a computing (Col. 2, Lines 57-59, Col. 6, Lines 8-11) device, comprising: a body; a light emitting diode (LED) affixed to the body (Col. 3, Lines 6-11); a power supply for the LED (Col. 8, Lines 41-46); a mode change activator integrated into the body (Col. 3, Lines 30-41), the mode change activator configured to cause a variation of a light originating from the LED, wherein the variation is capable of being detected to cause a mode change at the computing device (Col. 3, Line 12 to Col. 4, Line 19 during the mouse mode different position of the cursor selected by the light variation, and similarly in television mode similar light variation determines channels and program for television using microprocessor, Col. 8, Lines 7-40, Col. 9, Line 30 to Col. 10, Line 67).

Regarding Claim 42, Curran et al. teaches the mode change activator is configured to cycle between two variations of the light ((Col. 3, Line 12 to Col. 4, Line 19 during the mouse

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mode different position of the cursor selected by the light variation, and similarly in television mode similar light variation determines channels and program for television using microprocessor, Col. 8, Lines 7-40, Col. 9, Line 30 to Col. 10, Line 67).

Regarding Claim 43, Curran et al. teaches the body includes a first end and a second end, a first LED affixed to the first end, a second LED affixed to the second end. (Col. 2, Lines 57-59, Col. 6, Lines 8-11, Col. 8, Lines 41-46, Col. 3, Lines 6-41).

Regarding Claim 44, Curran et al. teaches the first LED emits a first variant of light and the second LED emits a second variant of light (Col. 3, Line 12 to Col. 4, Line 19).

Regarding Claim 45, Curran et al. teaches an infrared emitter (Col. 3, Line 14).

Regarding Claim 46, Curran et al. teaches the body includes a first LED adjacently located to a second LED, the first LED emitting a first variant of light and the second LED emitting a second variant of light ring and thimble (Col. 3, Line 12 to Col. 4, Line 19).

Regarding Claim 47, Curran et al. teaches the body is configured to be held within a human hand (Col. 3, Line 30).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pryor (US 2006/ 0033713 A1) in view of Curran et al. (US 6,753,849 B1).

Regarding Claim 1, Pryor teaches a method for triggering input commands of a program run on a computing system (pages 3,4, paragraphs 71-74), comprising: monitoring a field of view in front of an image capture device (page 4, paragraphs 83,84); identifying a light source within the field of view (page 7, paragraph 151); detecting a change in light emitted from the light source (page 7, paragraphs 151,152).

However, Pryor fails to disclose and in response to detecting the change, triggering an input command at the program run on the computing system.

However, Curran et al. discloses detecting a change in light emitted from the light source (Col. 3, Line 12 to Col. 4, Line 19 during the mouse mode different position of the cursor selected by the light variation, and similarly in television mode similar light variation determines channels and program for television using microprocessor, Col. 8, Lines 7-40, Col. 9, Line 30 to Col. 10, Line 67).

The reason to combine Pryor fails to disclose a specific method of activating a specific operation by triggering by detecting light variation in a light emitting input device. However,

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Curran does disclose a remote for a TV where user not only watches TV programming but also has computer mouse operation available to operate and select randomly any specific programming selected from menu presented on the screen by dragging, dropping or moving cursor any where on the screen.

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Curran et al. in the teaching of Pryor to be able to have user friendly TV system not only user can watch different programming but also play video game.

Regarding Claim 2, Pryor discloses the change is one of a color change, and a light variation change (pages 39 and 40, paragraphs 687-689, 691-694).

Regarding Claim 3, Pryor discloses the light source is a light emitting diode (LED) capable of emitting multiple colors of light (page 40, paragraphs 691-694 color LED are well known in the art).

Regarding Claim 4, Curran et al. discloses the method operation of identifying a light source within the field of view includes, masking background light effects within the field of view (Col. 3, Lines 42-62).

Regarding Claim 5, Curran et al. discloses operation of masking background light effects within the field of view includes, reducing an amount of light allowed into an aperture of the image capture device (Col. 3, Line 42 to Col. 4, Line 19).

Regarding Claim 6, Curran et al. discloses the input command causes a mode change linked to a cursor displayed on a display screen associated with the computing system (Col. 3, Line 12 to Col. 4, Line 19 during the mouse mode different position of the cursor selected by the light variation, and similarly in television mode similar light variation determines channels and program for television using microprocessor, Col. 8, Lines 7-40, Col. 9, Line 30 to Col. 10, Line 67).

Regarding Claim 7, Curran et al. discloses operation of identifying a light source within the field of view includes, defining an area representing the light source within a grid associated with the image capture device; and expanding the area representing the light source within the grid (Col. 3, Line 42 to Col. 4, Line 19, discloses how vertical and horizontal masking is organized to create grid type environment).

Pryor discloses operation of identifying a light source within the field of view includes, defining an area representing the light source within a grid associated with the image capture device; and expanding the area representing the light source within the grid (page 37, paragraph 657, pages 21,22, paragraphs 390,397).

Regarding Claim 8, Pryor discloses operation of expanding the area representing the light source within the grid includes, defocusing the image capture device relative to the light source (page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 38, paragraph 676).

Regarding Claim 9, Pryor discloses operation of identifying a light source within the field of view includes, calculating a centroid of an image representing the light source through a grid associated with the image capture device (page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 20, paragraph 373, page 8, paragraph 177, page 23, paragraph 414).

Regarding Claim 10, Pryor discloses translating coordinates of the centroid to a location on a display screen associated with the computing system; detecting movement of the light source within the field of view; and correlating the movement of the light source to movement of a cursor on the display screen (page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 20, paragraph 373, page 8, paragraph 177, page 23, paragraph 414 page 13, paragraph 242, page 19, paragraph 365).

Regarding Claim 11, Pryor teaches a method for detecting input commands from an input source (page 19, paragraph 369, page 20, paragraphs 371,373) within a field of sight of an image capture device (page 12, paragraph 369) comprising: minimizing an amount of light entering the image capture device (page 40, paragraphs 693-705, page 34, paragraph 599); detecting a first color light from the input source through the image capture device; detecting a change from the first color light to a second color light (page 20, paragraph 372, page 7, paragraphs 148-151);

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and presenting a mode change in response to the change in the first color light signal (page 7, paragraph 153).

However, Pryor fails to specifically disclose the method of minimizing of an amount of light entering.

However, Curran et al. teaches minimizing of an amount of light entering (Col. 3, Line 42-62).

The reason to combine Pryor fails to disclose a specific method of activating a specific operation by triggering by detecting light variation in a light emitting input device. However, Curran does disclose a remote for a TV where user not only watches TV programming but also has computer mouse operation available to operate and select randomly any specific programming selected from menu presented on the screen by dragging, dropping or moving cursor any where on the screen.

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Curran et al. in the teaching of Pryor to be able to have user friendly TV system not only user can watch different programming but also play video game.

Regarding Claim 12, Pryor discloses minimizing an amount of light entering an image capture device includes, reducing an aperture size (or filtering the light) of the image capture device to enhance a signal representing light from the input source relative to other captured image data (page 8, paragraphs 177,178 page 40, paragraphs 693-705, page 34, paragraph 599,

by filtering the light).

Regarding Claim 13, Pryor does disclose operation of reducing an aperture size of the image capture device results in filtering background light capable of interfering with light received from the input device (page 40, paragraphs 693-705, page 34, paragraph 599).

Regarding Claim 14, Pryor teaches operation of detecting a first color light signal from the light source through the image capture device includes, determining a location of a center of the first color light signal on a coordinate system associated with the image capture device; and mapping the location to a corresponding location on a display screen (page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 20, paragraph 373, page 8, paragraph 177, page 23, paragraph 414 page 13, paragraph 242, page 19, paragraph 365).

Regarding Claim 15, Pryor teaches operation of detecting a change from the first color light to a second color light includes, detecting the second color light from the input source; and comparing pixel values associated with the first color light to pixel values associated with the second color light (pages 8,9, paragraphs 176-186).

Regarding Claim 16, Pryor teaches reverting to the first color light from the second color light; and in response to reverting to the first color light, terminating the mode change (page 20, paragraph 372, page 7, paragraphs 148-151, 153).

Regarding Claim 17, Curran et al. teaches the mode change is associated with one of a click and drag operation and a highlighting operation (Col. 8, Lines 7-24).

Regarding Claim 18, Pryor teaches the first color light and the second color light originate from one of a single light emitting diode and multiple light emitting diodes (page 40, paragraph 705, page 4, paragraph 95).

Regarding Claim 19, Pryor teaches a computer readable medium having program instructions for triggering input commands of a program run on a computing system (page 4, paragraph 102, page 11, paragraphs 211-215), comprising: program instructions for monitoring a field of view in front of an image capture device (page 6, paragraphs 132-135); program instructions for identifying a light source within the field of view (page 4, paragraph 88, page 6, paragraph 123, page 21, paragraphs 392-395); program instructions for detecting a change in light emitted from the light source (page 4, paragraph 88, page 6, paragraph 123, page 21, paragraphs 392-395, pages 19,20, paragraphs 369, page 34, paragraph 599).

However, Pryor fails to disclose program instructions for triggering an input command at the program run on the computing system in response to detecting the change.

However, Curran et al. teaches program instructions for triggering an input command at the program run on the computing system in response to detecting the change (Col. 3, Line 12 to Col. 4, Line 19 during the mouse mode different position of the cursor selected by the light variation, and similarly in television mode similar light variation determines channels and

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program for television using microprocessor, Col. 8, Lines 7-40, Col. 9, Line 30 to Col. 10, Line 67).

The reason to combine Pryor fails to disclose a specific method of activating a specific operation by triggering by detecting light variation in a light emitting input device. However, Curran does disclose a remote for a TV where user not only watches TV programming but also has computer mouse operation available to operate and select randomly any specific programming selected from menu presented on the screen by dragging, dropping or moving cursor any where on the screen.

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Curran et al. in the teaching of Pryor to be able to have user friendly TV system not only user can watch different programming but also play video game.

Regarding Claim 20, Pryor teaches the change is one of a color change and a light variation change (page 7, paragraphs 146-152, page 8, paragraph 180, page 34, paragraph 599, page 36,37 paragraphs 635-654).

Regarding Claim 21, Pryor teaches the light source is a light emitting diode capable of emitting multiple colors of light (page 40, paragraph 705, page 4, paragraph 95).

Regarding Claim 22, Curran et al. teaches the program instructions for identifying a light source within the field of view includes, program instructions for masking background light effects within the field of view (Col. 3, Line 42 to Col. 4, Line 19).

Regarding Claim 23, the program instructions for masking background light effects within the field of view includes, program instructions for reducing an amount of light allowed into an aperture of the image capture device (page 8, paragraphs 177,178 page 40, paragraphs 693-705, page 34, paragraph 599).

Regarding Claim 24, Curran et al. teaches wherein the input command causes a mode change linked to a cursor displayed on a display screen associated with the computing system (Col. 1, Line 35 to Col. 2, Line 3, Col. 2, lines 37-67).

Regarding Claim 25, Pryor teaches the program instructions for identifying a light source within the field of view includes, program instructions for defining an area representing the light source within a grid associated with the image capture device; and program instructions for expanding the area representing the light source within the grid (page 37, paragraph 657, pages 21,22, paragraphs 390,397).

Regarding Claim 26 Pryor teaches the program instructions for expanding the area representing the light source within the grid includes, program instructions for defocusing the

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image capture device relative to the light source (page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 38, paragraphs 676,677).

Regarding Claim 27 Pryor teaches the program instructions for identifying a light source within the field of view includes, program instructions for calculating a centroid of an image representing the light source through a grid associated with the image capture device (page 8, paragraphs 177,178 page 40, paragraphs 693-705, page 34, paragraph 599, page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 20, paragraph 373, page 23, paragraph 414 page 13, paragraph 242, page 19, paragraph 365).

Regarding Claim 28, Pryor teaches program instructions for translating coordinates of the centroid to a location on a display screen associated with the computing system; program instructions for detecting movement of the light source within the field of view; and program instructions for correlating the movement of the light source to movement of a cursor on the display screen. (page 8, paragraphs 177,178, page 40, paragraphs 693-705, page 34, paragraph 599, page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 20, paragraph 373, page 23, paragraph 414 page 13, paragraph 242, page 19, paragraph 365).

Regarding Claim 29, Pryor teaches a computer readable medium having program instructions for detecting input commands from an input source (page 4, paragraph 102, page 11, paragraphs 211-215), within a field of sight (page 12, paragraph 369) of an image capture device (page 6, paragraphs 132-135), comprising: program instructions for minimizing an amount of

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light entering the image capture device (page 8, paragraphs 177,178 page 40, paragraphs 693-705, page 34, paragraph 599, reducing an aperture size or filtering the light); program instructions for detecting a first color light from the input source through the image capture device (pages 8,9, paragraphs 176-186); program instructions for detecting a change from the first color light to a second color light (page 20, paragraph 372, page 7, paragraphs 148-151, 153, pages 8,9, paragraphs 176-186); and program instructions for triggering a mode change in response to the change in the first color light signal (page 4, paragraph 88, page 6, paragraph 123, page 21, paragraphs 392-395, pages 19,20, paragraphs 369, page 34, paragraph 599, page 7, paragraphs 151,152).

However, Pryor fails to disclose program instructions for triggering an input command at the program run on the computing system in response to detecting the change.

However, Curran et al. teaches program instructions for triggering an input command at the program run on the computing system in response to detecting the change (Col. 3, Line 12 to Col. 4, Line 19 during the mouse mode different position of the cursor selected by the light variation, and similarly in television mode similar light variation determines channels and program for television using microprocessor, Col. 8, Lines 7-40, Col. 9, Line 30 to Col. 10, Line 67).

The reason to combine Pryor fails to disclose a specific method of activating a specific operation by triggering by detecting light variation in a light emitting input device. However, Curran does disclose a remote for a TV where user not only watches TV programming but also has computer mouse operation available to operate and select randomly any specific

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programming selected from menu presented on the screen by dragging, dropping or moving cursor any where on the screen.

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Curran et al. in the teaching of Pryor to be able to have user friendly TV system not only user can watch different programming but also play video game.

Regarding Claim 30, Pryor teaches the program instructions for minimizing an amount of light entering an image capture device includes, program instructions for reducing an aperture size of the image capture device (page 8, paragraphs 177,178 page 40, paragraphs 693-705, page 34, paragraph 599, by filtering the light).

Regarding Claim 31, Pryor teaches the program instructions for detecting a first color light from the light source through the image capture device includes, program instructions for determining a location of a center of the first color light on a coordinate system associated with the image capture device; and program instructions for mapping the location to a corresponding location on a display screen. (page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 20, paragraph 373, page 8, paragraph 177, page 23, paragraph 414 page 13, paragraph 242, page 19, paragraph 365).

Regarding Claim 32, Pryor teaches the program instructions for detecting a first color light from the light source through the image capture device includes, program instructions for

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defocusing the image capture device with respect to the light source (page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 38, paragraphs 676,677).

Regarding Claim 33, Pryor teaches program instructions for reverting to the first color light from the second color light; and program instructions for terminating the mode change in response to reverting to the first color light (page 20, paragraph 372, page 7, paragraphs 148-151,153).

Regarding Claim 34, Pryor teaches a computing system (page 4, paragraph 102, page 11, paragraphs 211-215), comprising: an image capture device (page 6, paragraphs 132-135); logic for monitoring a field of view associated with the image capture device (page 6, paragraphs 132-135); logic for tracking a position of a light source associated with an input object (page 4, paragraph 88, page 6, paragraph 123, page 21, paragraphs 392-395); logic for detecting a color change in the light source (page 4, paragraph 88, page 6, paragraph 123, page 21, paragraphs 392-395, pages 19,20, paragraphs 369, page 34, paragraph 599); and logic for triggering a mode change command at a main program run through the computing system, in response to the detected color change in the light source (page 20, paragraph 372, page 7, paragraphs 148-151, 153, pages 8,9, paragraphs 176-186); and program instructions for triggering a mode change in response to the change in the first color light signal (page 4, paragraph 88, page 6, paragraph 123, page 21, paragraphs 392-395, pages 19,20, paragraphs 369, page 34, paragraph 599, page 7, paragraphs 151,152).

However, Pryor fails to disclose program instructions for triggering an input command at the program run on the computing system in response to detecting the change.

However, Curran et al. teaches program instructions for triggering an input command at the program run on the computing system in response to detecting the change (Col. 3, Line 12 to Col. 4, Line 19 during the mouse mode different position of the cursor selected by the light variation, and similarly in television mode similar light variation determines channels and program for television using microprocessor, Col. 8, Lines 7-40, Col. 9, Line 30 to Col. 10, Line 67).

The reason to combine Pryor fails to disclose a specific method of activating a specific operation by triggering by detecting light variation in a light emitting input device. However, Curran does disclose a remote for a TV where user not only watches TV programming but also has computer mouse operation available to operate and select randomly any specific programming selected from menu presented on the screen by dragging, dropping or moving cursor any where on the screen.

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Curran et al. in the teaching of Pryor to be able to have user friendly TV system not only user can watch different programming but also play video game.

Regarding Claim 35, Pryor teaches the computing system is one of a game console, a general computer, networked computer, and a distributed processing computer (page 4,

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paragraphs 102, page 5, paragraphs 105,108, page 14, paragraphs 267-272).

Regarding Claim 36, Pryor teaches the logic for detecting a color change in the light source includes, logic for detecting a change in a pixel value associated with the light source; and logic for detecting a change in a position of the light source relative to the image capture device (pages 8,9, paragraphs 176-186).

Regarding Claim 37, Pryor teaches each logic element is one or a combination of hardware and software (pages 14,15, paragraph 272, page 28, paragraph 491, page 29, paragraph 510, it is well known to one ordinary skill in the art, as in order to develop game system or networking the hardware and software both will have plenty of logic to achieve objective).

Regarding Claim 38 Pryor teaches the logic for detecting a change in a position of the light source relative to the image capture device includes, logic for calculating a centroid of an image representing the light source through a grid associated with the image capture device. logic for translating coordinates of the centroid to a location on a display screen associated with the computing system; logic for detecting movement of the light source within the field of view; and logic for correlating the movement of the light source to movement of a cursor on the display screen (page 8, paragraphs 177,178 page 40, paragraphs 693-705, page 34, paragraph 599, page 37, paragraph 657, pages 21,22, paragraphs 390,397, page 20, paragraph 373, page 23, paragraph 414 page 13, paragraph 242, page 19, paragraph 365).

Regarding Claim 39, Curran et al. the logic for correlating the movement of the light source to movement of a cursor on the display screen includes, logic for adjusting a scale associated with translation of the movement of the light source to the movement of the cursor according to a distance of a user relative to the image capture device (Col. 3, Line 30 to Col. 4, Line 19, Col. 5, Lines 9-23).

Regarding Claim 40 Pryor teaches logic for minimizing an amount of light entering the image capture device in order to mask background light not associated with the light source (page 8, paragraphs 177,178 page 40, paragraphs 693-705, page 34, paragraph 599).

9. Claims 48-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Curran et al. (US 6,753,849 B1) as applied to claims 41-47 above, and further in view of Pryor (US 2006/0033713 A1).

Regarding Claim 48, Curran et al. fails to disclose the body is a ring configured to fit over a human finger.

However, Pryor the body is a ring configured to fit over a human finger page 39, paragraphs 684-687).

The reason to combine LED or IR devices need specific path for light to travel to achieve accuracy and avoid all the neighbor devices or environmental interference. The ring with LED let user point more accurately than a regular remote controller.

Thus it would have been obvious to one in the ordinary skill in the art at the time of invention was made to incorporate the teaching of Pryor in the teaching of Curran et al. to be able to have user friendly remote like a ring that fits on the finger to be able to point and have a path for light to travel to achieve accuracy and avoid all the neighbor devices or environmental interference.

Regarding Claim 49, Pryor teaches the body is thimble shaped and the LED is affixed to a base of the thimble shaped body (page 39, paragraph 692).

Regarding Claim 50, Curran et al. teaches the mode change activator is configured to cycle between at least three light variant changes (Col. 3, Line 12 to Col. 4, line 19).

Pryor teaches the mode change activator is configured to cycle between at least three light variant changes (page 20, paragraph 372, page 7, paragraphs 148-151, 153, page 7, paragraphs 146-152, page 8, paragraph 180, page 34, paragraph 599, page 36, 37 paragraphs 635-654).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nayar, Shree K et al. (US 2004/0070565 A1) Method and apparatus for displaying images.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M. Dharia whose telephone number is 571-272-7668.

The examiner can normally be reached on M-F 8AM to 5PM.

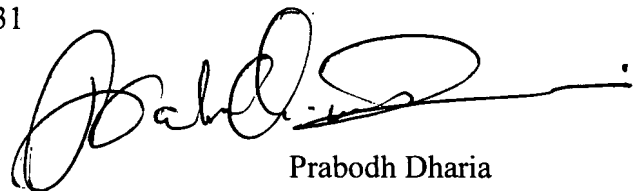
12. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

A handwritten signature in black ink, appearing to read 'Prabodh Dharia', with a long horizontal flourish extending to the right.

Prabodh Dharia

Partial Signatory Authority

AU 2629

March 07, 2007